Land Information, Modernization, and Integration Plan

2012

Wisconsin Department of Health Services

Contents

I. Executive Summary

A. Agency Identification and Plan Coordinator

The Wisconsin Department of Health Services (DHS) is submitting this annual integration plan to the Department of Administration (DOA) as required by statute and in accordance with the most recent instructions (2012) for State Agency Plans to Integrate Land Information. Preparation of this plan was coordinated by:

Aaron Weier
IS Data Services Specialist - GIS Analyst
Bureau of Information and Technology Services (BITS)
Division of Enterprise Services (DES)
State of WI Department of Health Services
P.O. Box 7850, 1 W. Wilson St, Madison, WI 53707-7850
Email: Aaron.Weier@wi.gov
Phone: 608.267.2360

B. Additional Contact Person

Rosann Jesberger
Application Support Unit Supervisor
Bureau of Information and Technology Services (BITS)
Division of Enterprise Services (DES)
State of WI Department of Health Services
P.O. Box 7850, 1 W. Wilson St, Madison, WI 53707-7850
Email: Rosann.Jesberger@wi.gov
Phone: 608.261.6834

C. Plan Summary

DHS is required by State Statute (Sec. 16.967(6)) to make land information (data with location characteristics, e.g., addresses) available to the public and sharable across state agencies. By integrating land information across agencies, the state intends to "reduce inter-agency duplication, reduce the cost of government and increase the services provided to Wisconsin taxpayers" and achieve "improved analysis, decision support, and administration."

To help achieve compliance with the above statute and facilitate the management of quality land information and Geographic Information System (GIS)/Land Information Systems (LIS) applications, DHS established a GIS program in the fall of 1998 to serve the Department. The GIS program promotes the organization's education and awareness of the GIS technology and the value of address standardization. The program provides a wide range of services and support to the DHS business areas, including spatial data creation, mapping, GIS consulting and

training, support for stand-alone mapping activities in some business and program areas, geospatial application development (desktop and web), and address standardization.

At the same time, the GIS program continues to investigate and promote enterprise infrastructure to standardize, manage, distribute, and facilitate access to the agency's land-based (geographic) data holdings, pushing the infrastructure to evolve and mature. The goal is to put GIS capabilities directly into the hands of people who will most benefit from its application. Efforts focus on developing and maintaining high quality land information as well as providing easy, secure access to it.

DHS does create statewide base layers of land information and, if appropriate, share these layers with other divisions and bureaus of the Department, as well as other State agencies.

Additionally, work continues in our Division of Public Health to investigate opportunities for GIS functionality in public health applications and on the Public Health Information Network, hosted by DOA/DET.

II. The Five Technology Architectures

The following sections provide detailed goals and objectives related to DHS' overall vision and plan for the collection, maintenance, distribution, and integration of land information, including metadata.

A. Applications Architecture

The applications architecture refers to the automated processes or systems that an organization uses to support its programs and to provide service to its customers. The applications architecture also includes the interrelationship among the organization's applications in terms of sharing data, access to applications and the presentation of applications to users.

1. Applications incorporating land information or GIS/LIS:

Wisconsin Public Health Information Network (PHIN)

Connecting and sharing health information

The Wisconsin Public Health Information Network is a secure, online network from the Department of Health Services for integrating the information resources of the public health system and all public health partners. Using the Wisconsin PHIN, public health practitioners can securely contribute, retrieve, analyze, and eventually visualize public health data.

The Division of Public Health is developing the PHIN to address bio-terrorism, disease outbreaks, hazardous material incidents, and other health alerts/tracking necessities. The Division is collaborating with other business units in DHS, with UW DoIT, the Department of Natural Resources (DNR), and other partners to achieve a responsive and unified approach. The development of a GIS infrastructure and functionality on PHIN is currently being implemented and piloted.

Currently, we provide interactive choropleth/thematic mapping on various datasets:

- Maps for CHIPPs: Maps of birth, mortality and hospitalization data for the use by local health departments for CHIPP (Community Health Improvement Plan and Process).
- WEDSS: For communicable disease surveillance.
- WHIE: Syndromic surveillance.
- EPHT: Environmental data (water and air quality) and health outcomes data (asthma and MI hospitalizations, birth defects, cancer, childhood lead poisoning, CO poisoning).
- The PHIN program envisions the continued use and integration of geospatial data and technology within the existing and future Analysis Visualization and Reporting (AVR) toolkit. Expansion of current capabilities is anticipated.

The Wisconsin Public Health Information Network supports the entire spectrum of public health through:

- Disease detection and monitoring
- Data analysis
- Secure network communications
- Emergency alert and response
- Knowledge management

Public Health Preparedness

The Bureau of Information and Technology Services (BITS) in DHS is supporting the Division of Public Health's Preparedness program and initiatives with GIS. Programs like the Strategic National Stockpile (SNS) and Interim Pharmaceutical Stockpile (IPS) use GIS heavily to determine service areas, travel times, and routes from storage locations to distribution sites. The Preparedness program is far reaching and works closely with Federal agencies, such as the Centers for Disease Control and Prevention (CDC), as well as other state agencies such as Wisconsin Emergency Management. BITS provides mapping for warehouse and transportation usage, event simulations, and case tracking for communicable disease. BITS also creates public use tools to provide easily digestible geographic information during an emergency – integrate location-based services (PODs) into common mapping and direction generating tools such as Google maps and push these out with an emergency public information campaign.

Cancer Reporting System (CRS)

Since 1976, CRS has collected and processed case-level information about cancer incidence and mortality per statutory mandates. Among other things, this U.S. Centers For Disease Control and Prevention (CDC) funded population disease registry maintains and improves a central cancer case database pursuant to improving understanding of the burden of cancer on Wisconsin residents, trends in diagnosis, treatment, and subsequent mortality. Individual cancer patient abstracts, submitted by hospitals, clinics, and others, as requested include locational information including county and

postal delivery address of patients at diagnosis and places of diagnosis and treatment. To improve the fitness of location data for GIS, CRS makes available to data providers free point-of-service address validation and standardization software developed in-house with CDC funding. In addition, Postal data references are tracked and updated monthly through data provided from the U.S. Postal Service (USPS). Validation reference data is also made available via the CRS website including current tables of valid zip codes including counties covered by zip code delivery areas and USPS-accepted locality name associations for zip codes. Geocoded data is mapped and analyzed using ESRI ArcGIS at a number of geographical scales including census tracts, counties, and hospital service areas (adapted from the Dartmouth Atlas of Health.)

- Investigations of geocode discrepancies (field reported data vs Centrus-determined.) Findings from collaborative efforts with North Carolina Center for Health Statistics presented at NAACCR annual meeting, Regina, Saskatchewan, June 2006.
- Development of approaches to understanding and presenting geocode discrepancies and uncertainties presented at ESRI International User Conference, San Diego, August, 2006
- Collaborative (with North Carolina) development of point-of-service address validation and standardization application with USPS Wisconsin data in .NET. First working prototype completed in January 2007. Presentation and demonstration at State GIS Conference, Winston-Salem, NC, March 2007. (Developed for easy deployment as Web Application.)
- Participation with Harvard School of Public Health Geocoding Project (Boston, MA, June 2006) with development of Wisconsin datasets for geographical analysis of cancer incidence and SES
- Working member of NAACCR GIS Committee preparing (2007) manual of informed geocoding practices for central disease registries in US and Canada.
- Morgridge-Foundation supported collaboration (Since April 2006) with UW Geography Department in developing regional Wisconsin demographic atlas of medical care
- Currently preparing two papers for publication by URISA and presentation at URISA GIS in Public Health Conference (New Orleans, May 2007)
- “Right From The Start: Low-Cost Options For In-Field Address Validation”
- “Mapping Health Care Resources By Urban Service Areas in Wisconsin: Why and How”

2009

- Led CDC AVR webinar on programming for address validation and standardization
- Annual PHIN Conference presentation on Address Validation and Standardization, Atlanta, GA (with James Tobias, Northrup Grumman)

2010

- Participated in URISA address standards workshop, Chicago, IL
- Collaboration on address validation tool with University of Chicago-NORC (National Opinion Research Center)
- Assisted Georgia Public Health program with metropolitan Atlanta address postal-to-tract geocoding project

2011

- Initiated bi-annual CDC collaborative effort for bi-annual re-dissemination of geocoded CMS National Provider records normalized for relational database applications.
- Presentation on CMS National Provider geography, URUSA Public Health GIS Conference, Atlanta, GA
- Presentation on Public Health value of normalized/geocoded NPI database, CDC Geospatial Consortium, Atlanta, GA
- Prepared US Postal Service address website data service for North American Association of Central Cancer Registries (NAACCR, Springfield, IL)
- GIS collaboration with CDC neonatal screening program to identify location-based provider informants for surveillance program (Winnie Chung, CDC, Atlanta, GA)

2012

- Invited as member of CDC-based collaborative (with University of Utah High Speed Computing Center) to explore and develop parallel programming for Internet-based services (for public health data collection and research) including address validation, standardization and geocoding and provider availability analysis.
- Preparing paper on trends and practical implications of changing place of death of cancer patients diagnosed while residents of Wisconsin.
- Preparing CMS National Provider website data service for North American Association of Central Cancer Registries (NAACCR, Springfield, IL)

Radon Program

Outreach to the general public through 48 cooperating local public health agencies, to encourage them in testing houses for indoor radon, and reduction of the radon as appropriate. Work with a non-regulated radon industry, of radon measurement and radon mitigation businesses. We have produced and updated state zip code maps of average indoor radon exposures from measurements in houses.

Please see the radon maps at our website, www.lowradon.org, and their enlargements.

Wisconsin Childhood Lead Poisoning Prevention Program (WCLPPP)

WCLPPP is responsible for protecting children from lead poisoning. By testing children, tracking their locations, and analyzing the data using GIS, WCLPPP has built a map series to represent blood lead levels in every Wisconsin county, as well as many of the larger

cities in the State. The program's mapping efforts are effective and are widely used by local health departments and lead-safe housing coalitions across the state. In October 2004, this map series was placed on the Lead-Safe Wisconsin website (DHS.wisconsin.gov/lead/Data/Maps/indexMaps.htm) to increase the availability of these maps to local health departments, community partners, health care providers, and the general public. In 2008, revised maps with more years of data for Wisconsin cities with a population of 20,000 or more were posted on the webpage. These maps have been a valuable tool for submission with grant applications. In 2010, GIS maps of lead poisoning and older housing along legislative district lines, as well as associated cities in the jurisdiction, were added to the Lead-Safe Wisconsin webpage, providing information for policymakers.

AIDS/HIV Program

The AIDS/HIV Section coordinates the state's public health response to the AIDS/HIV epidemic including surveillance and epidemiologic investigation; HIV testing and referral, partner services, education and risk reduction activities; case management and Ryan White funded care services; and AIDS drug assistance and health insurance premium subsidy programs. It is also responsible for Adult Hepatitis prevention and control. The Wisconsin AIDS/HIV Program has used, or plans to use, geocoded data and GIS for the following:

- Assessing the location of cases as they relate to venues for prevention messaging and interventions, testing sites, care and treatment locations, as well as potential barriers to care (e.g. bus lines);
- Linking geographic data to the socioeconomic variables in the census dataset to better understand the social determinants underlying HIV infection;
- Locating geographic pockets of HIV transmission
- Assessing geographic proximity to publicly funded HIV testing and care locations;
- Conducting community-level health outcomes analyses (e.g. Community Viral load assessments) to inform HIV testing and care initiatives; and
- Creating thematic maps to be included in the annual surveillance summary and to disseminate to partners.

Division of Quality Assurance

DQA has a need for highly accurate geocodes for facilities they regulate (e.g. nursing homes, hospitals, and assisted living facilities) to enable production of a variety of maps. The Division combines facility location data with other information such as resident data and survey performance indicators to produce thematic maps of interest to consumers, providers, and Division management.

DQA is also developing a web-based provider portal that will give consumers and others the ability to query Division databases for information about regulated

providers. This system will utilize provider geospatial attributes to facilitate locational queries and plotting of search results on interactive maps.

Organ and Tissue Donor Program – Donor Intent Web Application

This project is for the creation of a web application to import data from Department of Transportation (DOT) on the donor decisions of drivers and identification (ID) holders throughout the state and the creation of reports and maps. These reports will steer outreach and public education efforts aimed at increasing the number of people who say "yes" to donation, ultimately saving the lives of people waiting for transplants.

Aging and Disability Services

The Bureau of Aging and Disability Resources in the Division of Long Term Care has initiated a number of projects that use GIS to map demographic, health, and program information at the county, county subdivision, and Census tract levels. These projects are part of a broad effort to develop more efficient, population-based care management and service delivery systems. GIS is also used to map program and service locations for presentation and outreach purposes.

Wisconsin Diabetes Prevention and Control Program

The Wisconsin Diabetes Prevention and Control Program is dedicated to improving the health of people at risk for or with diabetes. We rely on our strong partnerships in the development, distribution, and implementation of resources.

Environmental Public Health Tracking (EPHT)

The EPHT program has developed a secure and a public website for dissemination and display of environmentally related health data and GIS applications are one of the primary cornerstones for displaying the data. GIS applications allow users to view data across spatial scales in a way that is easy to understand and informative to a broad range of audiences.

The program is working with a variety of additional topics, particularly those related to the Environmental and Occupational Health objectives stated in Healthiest Wisconsin 2020. The goal is to integrate geospatial data from multiple sources into comprehensive indices used for evaluating overall environmental and occupational health in Wisconsin’s communities.

The program brings together environment and health data to assist in the connection of the effect of environmental hazards on human health. The intended audience of the data is local health departments, policy makers, and academia.

Wisconsin National Toxic Substance Incidents Program (NTSIP)

State-based surveillance system with the goal of tracking and preventing the adverse public health consequences associated with the uncontrolled or illegal release of hazardous substances. We are using SAS to generate static county-level thematic maps.

We are using geospatial technology to create Social Vulnerability Index maps. We are using GIS to identify communities for further detailed analysis

Nutrition Physical Activity and Obesity

The Nutrition, Physical Activity, and Obesity program's focus is on obesity prevention by fostering healthy eating, active living, and breastfeeding through policy, environment, and systems change.

Our program currently uses geospatial data:

- For surveillance purposes to map health outcomes and risk behaviors of interest by county.
- For existing grant projects: Our program is a partner in the Assessing the Nutrition Environment in Wisconsin Communities (ANEWC) project. Together, we're using ArcGIS to map food stores and restaurants that fall within geographically prescribed buffer areas. This year we'll use data files from ESRI-BA to streamline the mapping process. We'll also BA's consumer data to assess food and drink purchasing behavior statewide and plan local nutrition environment interventions.

Primary Care Program

The Wisconsin Primary Care Program coordinates a number of state and federal programs that help increase access to primary care, mental, and dental health services for people living in rural and urban communities in Wisconsin where there are shortages of health care providers.

Currently, the primary care program has used geospatial data and technology to map:

- Geographic health professional shortage areas (HPSAs). These maps give a statewide picture of areas that are considered to have shortages of providers in the areas of primary care, dental, and mental health based on a federal HPSA designation.
- Geographic medically underserved areas (MUAs). These maps give a statewide picture of areas that are considered MUAs and show the location of current safety net providers (these include community health centers, rural health clinics, tribal health centers, and critical access hospitals)
- Dental practitioner shortages by county (this displayed the number of FTEs needed per county to adequately serve the low-income dental patient population)

Oral Health Program

The mission of the Oral Health Program is to promote and improve oral health for the benefit of all Wisconsin citizens. This is accomplished through policy development,

technical assistance, needs assessment, training, education, and through the planning, implementation, and evaluation of preventive oral health programs.

The program uses geospatial data and technology to map disease prevalence data, community water fluoridation levels, and Medicaid utilization data. In addition, the program uses GIS to map dental providers in the state in order to analyze the relationship between access to care and location of available services.

BadgerCare+

The BadgerCare+ program maps providers and members to insure the HMOs have the capacity and access standards set forth by the Department and CMS.

WI Asthma Program

The WI Asthma Program seeks to comprehensively address the burden of asthma through surveillance, partnerships and interventions. The program has used GIS to create maps depicting areas of low and high asthma burden at the national and county level in surveillance reports and presentations.

WI Communicable Disease Epidemiology Section

The WI Communicable Disease Program works with local, state, and federal agencies to provide disease intervention consultation, disease surveillance, monitoring of statistical trends, and implementation and maintenance of prevention programs.

We use GIS to visualize, track, and monitor disease outbreaks. We also generate maps summarizing surveillance data, which are often shared with the public and/or other agencies.

Respiratory and International Health

We provide case management for tuberculosis patients, suspects, and those with TB infection; we oversee the health assessments provided for refugees and immigrants at entry to WI; also evaluate and keep statistics on blastomycosis and other fungal lung diseases. We map out our TB cases and suspects annually; would love to be able to do more high res analysis and mapping of cases etc., but haven't had time to set it up. Currently we map by county.

Heart Disease and Stroke Prevention (HDSP)

HDSP works with statewide partners (Alliance) to prevent heart disease and stroke and their risk factors in Wisconsin. HDSP uses GIS maps to show geographic disparities in Wisconsin and provide guidance for interventions to reduce disparities.

2. High-level and agency-wide land information integration efforts

Currently, DHS is working to integrate spatial data layers from multiple internal and external sources. Geodatabases have been created, and are being populated, with spatial information that will be accessible by all ArcGIS Desktop users throughout the department.

3. Major GIS or LIS application interfaces developed by DHS

DHS has deployed and maintained the Environmental Public Health Tracking Portal mapping and informational application. Several other "flex" based applications are being prototyped.

B. Information Architecture

The information architecture refers to the organization or design of data. It provides a clear definition of how the data is structured, collected, shared, maintained, and stored from both the IT and business community perspectives.

1. Major Land Information data sets and metadata used within DHS

Mechanisms of access or distribution of land information and metadata

In the event DHS shares data internally or externally, DHS primarily uses e-mail. If file sizes are too large, CD's are used. Database connections, layer files, and web service layers are currently under development and will be accessible via ArcGIS desktop, file system connections, and the internet in months to come.

Land information or metadata on DHS website

DHS does not currently publish data on the DHS web site, WISCLINC, or other web sites at this time.

Policies, content, or technical standards

DHS follows Federal Geographic Data Committee (FGDC) standards for metadata.

Land information that relates or depends on other State Agencies

DHS depends on roads, water, administrative boundaries, etc. from other agencies such as DOT, DNR, and DOA.

Describe land information from outside sources

DHS uses several base layers in our day-to-day operations, and gets those layers from DOA and uses the base layers in our maps. Those layers include but are not limited to county boundaries, roads, land use, hydrography, minor civil divisions, census polygons, orthophotos, digital raster graphics, and school districts. DHS has not run into any obstacles in obtaining this data at the state level. However, when data is needed from county or municipal government, data collection is more difficult. This is primarily because it is harder to find the right contact person. Internet based map services have been used in recent history and will continued to be used in the future.

2. Software used to develop and provide access to geospatial metadata

DHS uses ArcGIS Desktop (ArcCatalog) for metadata creation and maintenance.

3. Agency Internet URL's for accessing metadata

DHS does not publish metadata on the web.

4. Future plans for metadata collection and maintenance

DHS will continue to create and maintain metadata as needed.

C. Technology Architecture

The technology architecture refers to the hardware, software, systems, methods, and standards an organization uses to develop and operate computer systems and communication networks for the transmission of data, voice, and video.

This section addresses DHS's approach to GIS technology implementation and includes a discussion of our vision of future technology architecture, software purchases, and upgrades.

The DHS Land Information Modernization and Integration Plan's technology architecture focuses on delivering efficient and cost-effective desktop software to those who need it. This architecture consists of the items listed below. The components are also explained, and the current status and next-step plans for each component are described.

Desktop

ArcGIS Desktop products and extensions

ArcGIS Desktop 10

DHS currently uses ESRI ArcGIS Desktop 10 for desktop mapping projects and plans to continue using ESRI as the vendor for all of our GIS software needs. Approximately 65 people throughout the Department use this software as well. These software tools are used to support the mapping and analytical needs of DHS business programs. See Applications Architecture section for examples on how DHS applies the desktop software.

Spatial Analyst

This extension was purchased in the summer of 2005 for use in the Division of Public Health's Tracking program. The Tracking program has a tremendous need to model environmental layers and link health outcomes to those environmental models. The use of this tool has constantly expanded over the years.

Network Analyst

The Network Analyst extension is used primarily for creating service areas and routing networks. Used mainly for the SNS project and analysis from one facility type (usually a storage facility) to another (distribution site), Network Analyst has been invaluable in determining what distribution facilities are closest to storage facilities, as well as determining approximate travel times and routes.

Group 1 Centrus Desktop

Centrus Desktop is used for address standardization and geocoding. DHS currently has two licenses. One license belongs to the GIS Analyst, and the other belongs to the GIS Resource Center laptop. These two licenses sufficiently serve the needs of the agency but we're quickly realizing that a web solution is needed. While the

desktop solution works, it doesn't allow for client-server or web systems to connect to it. Many programs are beginning to realize the value of standardized addresses for mailing and mapping purposes and would like to connect their databases to an "address standardization" workflow. We are currently researching potential web-based solutions for address standardization and geocoding.

DHS is aware of the DET Geocoding Service Offering that was deployed in February 2011. Unfortunately, due to its limitations with regards to address standardization, we'll continue to use Centrus since it also does geocoding. Using Centrus desktop also creates a limitation for us. Since we only have desktop licensing, it's accessibility and use is limited to batch desktop processing, which is very inefficient and creates a major workflow barrier for web based systems. If the DET Geocoding service offering is enhanced to perform address standardization we would actively evaluate the cost of using it versus the cost of continuing with Centrus at DHS.

Shared Resources

GIS Resource Center

In the winter of 2005-2006, DHS established a shared GIS workstation (hardware and software) as a resource for the entire agency. The workstation is a single computer available to anyone who needs to do GIS-related activities. It can be used for training, education, research, project work, and geocoding. The GIS staff manages, monitors, and supports the Resource Center. GIS staff also assists agency staff in effectively using the center.

Custom ArcGIS Training and Geoprocessing

The GIS staff is working to provide custom ArcGIS training and geoprocessing tools to the customers who rely heavily on the same information, do repetitive tasks, and do not need the full suite of tools and functionality in the standard out-of-the-box installation of ArcGIS. This customized development is targeted at those users who want to achieve efficiencies in daily routines.

Server

The Department has invested in a state enterprise solution for a networked GIS technology architecture and works with the State Geographic Information Officer at DOA to ensure investments are appropriate for DHS. DHS will focus on developing Intranet and Internet capabilities for land information sharing and business applications to provide the best cost/benefit solution for accessing shared land information and basic GIS functions. DHS is promoting sharing resources whenever practical within DHS and across agencies. At the same time, DHS continues to research current and emerging technologies and will recommend cost-effective, best-fit solutions for the Department and its business areas.

For the following product categories, DHS uses the listed product:

Web mapping software:

ArcGIS Server

Address geocoding software:
Group 1 Centrus Desktop

Image processing/remote sensing tools:
None

Document scanning tools:
HP Scanner

CAD (Computer-Aided Drafting):
None

GPS (global positioning systems) tools:
Varies by program

Raster scanning/vectorization tools:
None

Digitizing tools:
None

Large-format plotting/other output capabilities tools:
HP 1050 plotter

Metadata-collection tools:
ArcGIS Desktop (ArcCatalog)

D. Organizational Architecture

The organization architecture refers to the human resources in Information Technology (IT) and land information, and how they are used in support of the organization's mission.

1. Formal or informal land information sharing or development agreements

DHS has no current 'Memorandums of Understanding' (MOU's), agreements, or partners relating to land information. The Department is interested in becoming partners with and developing MOU's with other state agencies, specifically DOA, DOT, WEM, DMA, DATCP, and DNR. If DHS entered into an agreement, partnership, or MOU with an agency, it would need to follow strict guidelines about information sharing as it relates to HIPAA laws. Refer to the Security Architecture section–Information aspect bullet for more information.

2. Internal Agency GIS/LIS related groups

A GIS Users Group was created years ago but never gained momentum. We restructured our 'User Group' into a brown-bag style demonstration session. One-hour, monthly sessions are now pre-arranged around specific technical topics that were voted on by our technical GIS users.

3. Plans for GIS/LIS Training

In the summer of 2011, DPH was able to fund four training classes taught by UW LICGF based on their grant funding at the time. DHS does not offer formal, consistent training.

4. Anticipated organizational needs

DHS needs DET and DET/GIO to be a strong leader with regards to business requirement gathering and solution implementation. From desktop licensing, to software training, to web application development and support, DHS needs supplemental resources to meet the demands of internal customers.

E. Security Architecture

The following section describes policy or statutory provisions related to homeland security, privacy, cost recovery, liability, legal disclaimers, copyright, or licensing related to land information, mapping, data distribution, usage, and the Internet.

The DHS Land Information Modernization and Integration Plan's security architecture underscores the close relationship to the other architectures. The Department's implementation of the technology, application, information, and organizational aspects of the security architecture will follow all applicable Department IT security policies.

Technology aspect

DHS relies on and works with the Department's security officers and network team to ensure the proper protection of information systems.

Application aspect

DHS relies on and works with the Department's security officers and network team to ensure proper protection of information applications and data. DHS works with the business areas to identify the appropriate access levels for certain functions, and uses appropriate tools to manage the accesses by setting user accounts and passwords.

Information aspect

DHS works with the business areas to assess and classify land information in their custody. For example, the Department classifies data as public, for official use only, or confidential/sensitive. DHS then applies the appropriate level of protection/security controls. DHS works closely with the business areas to identify security and privacy issues with data sharing and to establish the proper procedures for sharing the data. The Department is required to comply with the HIPAA security and privacy rules dictating the protection of protected health information and personally identifiable information. DHS adheres to all federal and state laws and directives concerning these types of information.

Organizational aspect

DHS works with the Department's security officers and management, abiding by applicable policies, procedures, directives, etc., to assure a secure environment.

III. Appendix

Links to maps on DHS Internet Site, by Program

The following DHS programs have publicly available maps on the DHS Internet Site. The maps are in many forms and may be embedded in publicly available reports.

Public Health Preparedness
http://www.dhs.wisconsin.gov/localhealth/counties/regional.htm

Radon Program
http://www.dhs.wisconsin.gov/radiation/radon/

Wisconsin Childhood Lead Poisoning Prevention Program
http://www.dhs.wisconsin.gov/lead/Data/Maps/indexMaps.HTM

AIDS / HIV Program
http://www.dhs.wisconsin.gov/aids-hiv/Stats/index.htm

Organ and Tissue Donor Program
http://www.dhs.wisconsin.gov/health/donatelife/index.htm

Wisconsin Diabetes Prevention and Control Program
http://www.dhs.wisconsin.gov/publications/P0/P00284.pdf

Environmental Public Health Tracking
http://www.dhs.wisconsin.gov/epht

National Toxic Substance Incident Program
http://www.dhs.wisconsin.gov/eh/HSEES/HSEESTest/Image1993_2009C.asp

Primary Care Program
http://www.dhs.wisconsin.gov/health/primarycare/maps.htm

Oral Health Program
http://www.dhs.wisconsin.gov/health/Oral_Health/Wells.htm

Respiratory and International Health
http://www.dhs.wisconsin.gov/tb/statistics/DocsStatistics/2010_Case_Map.pdf

Heart Disease and Stroke Prevention (HDSP)
http://www.dhs.wisconsin.gov/health/cardiovascular/